UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

AUG 04 2015

Matthew Geouge, Owner
Spartan Diesel Technologies, LLC
578 Upward Rd. Suite 7
Flat Rock, NC 28731

Through:
Rick R. Rothman
Bingham McCutchen LLP
Suite 4400
355 South Grand Avenue
Los Angeles, CA 90071-3106

Re: Notice of Violation

Mr. Geouge:

The United States Environmental Protection Agency (EPA) has investigated and continues to investigate Spartan Diesel Technologies, LLC, (Spartan) for compliance with the Clean Air Act (CAA), 42 U.S.C. §§ 7401–7671q, and its implementing regulations. As summarized in this Notice of Violation, the EPA has determined that Spartan sold parts or components for motor vehicle engines that bypass, defeat, or render inoperative elements of design of those engines that were installed by the original equipment manufacturer in order to comply with CAA emission standards. The EPA has also determined that Spartan knew or should have known that these parts or components were offered for sale or installed for such use or put to such use. Therefore, Spartan violated section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B).

Law Governing Alleged Violations

This Notice of Violation arises under Part A of Title II of the CAA, 42 U.S.C. §§ 7521–7554, and the regulations promulgated thereunder. These laws were enacted to reduce air pollution from mobile sources of air pollution. In creating the CAA, Congress found, in part, that "the increasing use of motor vehicles . . . has resulted in mounting dangers to the public health and welfare." CAA § 101(a)(2), 42 U.S.C. § 7401(a)(2). Congress' purpose in creating the CAA, in part, was "to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population," and "to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution." CAA § 101(b)(1)–(2), 42 U.S.C. § 7401(b)(1)–(2).

The CAA requires the EPA to prescribe and revise, by regulation, standards applicable to the emission of any air pollutant from new motor vehicles or new motor vehicle engines which cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare. CAA §§ 202(a)(1) and (3)(B), 42 U.S.C. §§ 7521(a)(1) and (3)(B). Heavy duty diesel engines (HDDEs) are one category of motor vehicle engine for which the EPA has promulgated emission standards. *See generally* 40 C.F.R. Part 86, Subpart A (setting emission standards for HDDEs). As required by the CAA, the HDDE emission standards "reflect the greatest degree of emission reduction achievable through the application of [available] technology." CAA § 202(a)(3)(A)(i), 42 U.S.C. § 7521(a)(3)(A)(i). Accordingly, the EPA has established increasingly stringent HDDE emission standards. 40 C.F.R. §§ 86.004-11, 86.007-11, 86.099-11.

HDDE manufacturers employ many devices and elements of design to meet emission standards. *Element of design* means "any control system (i.e., computer software, electronic control system, emission control system, computer logic), and/or control system calibrations, and/or the results of systems interaction, and/or hardware items on a motor vehicle or motor vehicle engine." 40 C.F.R. § 86.094-2. For example, HDDE manufacturers employ retarded fuel injection timing as a primary emission control device for emissions of oxides of nitrogen (NOx). Manufacturers also employ certain hardware devices as emission control systems to manage and treat HDDE exhaust to reduce levels of regulated pollutants from being created or emitted into the ambient air. Such devices include diesel particulate filters, exhaust gas recirculation, and selective catalytic reduction. Modern HDDEs are equipped with electronic control modules (ECMs). ECMs continuously monitor engine and other operating parameters and control the emission control devices, such as the fueling strategy.

The CAA makes it a violation "for any person to manufacture or sell, or offer to sell, or install, any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine in compliance with regulations under this subchapter, and where the person knows or should know that such part or component is being offered for sale or installed for such use or put to such use." CAA § 203(a)(3)(B), 42 U.S.C. § 7522(a)(3)(B). It is also a violation to cause any of the foregoing acts. CAA § 203(a), 42 U.S.C. § 7522(a).

EPA Certification Program

To ensure that every HDDE which may legally be sold, offered for sale, imported, delivered for introduction into commerce, or introduced into commerce in the United States (collectively, introduced into commerce) satisfies the applicable emission standards, the EPA runs a certification program. Under this program, the EPA issues certificates of conformity (COCs), thereby qualifying motor vehicles and motor vehicle engines, including HDDEs, for introduction into the commerce. 40 C.F.R. § 86.007-30. To obtain a COC, an HDDE manufacturer must submit a COC application to the EPA for each engine family and each model year in which it intends to manufacture or import HDDEs for introduction into commerce. The COC application must include, among other things, identification of the covered engine family, a description of the HDDEs and their emission control systems, all auxiliary emission control devices (AECDs) and the engine parameters they sense, as well as test results from a test engine showing that the engine satisfies the applicable emission standards. 40 C.F.R. §§ 86.004-21, 86.007-21, 86.094-21, 86.096-21; *see also* EPA, *Advisory Circular Number 24-3: Implementation of Requirements Prohibiting Defeat Devices for On-Highway Heavy-Duty Engines* (Jan. 19, 2001). An AECD is "any element of design which senses temperature, vehicle speed, engine RPM, transmission gear, manifold vacuum, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system." 40 C.F.R. § 86.082-2.

*Defeat device* is an AECD "that reduces the effectiveness of the emission control system under conditions which may reasonably be expected to be encountered in normal vehicle operation and use, unless: (1) Such conditions are substantially included in the Federal emission test procedure; (2) The need for the AECD is justified in terms of protecting the vehicle against damage or accident; or (3) The AECD does not go beyond the requirements of engine starting." 40 C.F.R. § 86.094-2. The EPA refuses to certify motor vehicle engines equipped with defeat devices. EPA, *Advisory Circular Number 24: Prohibition on use of Emission Control Defeat Device* (Dec. 11, 1972). For example, "onboard computer algorithms that improve fuel economy but increase NOx emissions in diesel engines during highway driving by retarding timing during transient engine operating conditions and advanced timing during steady state operating conditions are illegal defeat devices." EPA, *Heavy-duty Diesel Engines Controlled by Onboard Computers*, VPCD-98-13 (HD Engine), at 2 (Oct. 15, 1998); *see also* EPA Press Release, *DOJ, EPA Announce One Billion Dollar Settlement With Diesel Engine Industry for Clean Air Act Violations* (Oct. 22, 1998) (describing enforcement cases based on HDDE manufacturers' use of fueling strategies to improve fuel economy at the expense of drastically increased NOx emissions).

Alleged Violations

Spartan manufactured, sold, offered for sale, or installed software and hardware used on HDDEs manufactured by the Ford Motor Company (Ford) or caused those actions. Spartan's software or hardware products were called (among other things) "Phalanx Flash Console" and "Maxforce XP, Exhaust." A principal effect of these products was to bypass, defeat, or render inoperative elements of the HDDEs design that control emissions of regulated air pollutants. Specifically, Spartan rendered inoperative the original engine manufacturers' software (insofar as it controlled the fueling strategy and other elements of design) and replaced it with its own software that,

among other things, controlled the fueling strategy. Also, Spartan rendered inoperative the original engine manufacturers' software (insofar as it received input from hardware used as emission control devices) and replaced it with its own software that allowed HDDEs to function without inputs from emission control devices. Both types of software increase engine power and fuel economy. As stated above, fuel injection timing and hardware (including exhaust gas recirculation devices and exhaust aftertreatment devices) are devices and elements of design that HDDE manufacturers employ to meet emission standards, and which they must describe in detail in their applications to EPA for COCs.

The Spartan software and hardware described above are identified by the table below.

| PRODUCT | EFFECT ON EMISSION CONTROL DEVICES | SELLING POINTS |
|---|---|---|
| Phalanx Flash Console 6.4L (MY '08-'10) | Shift scheduling, torque management, fueling, timing, turbo, "various other" parameters. Diesel Particulate Filter (DPF) and Exhaust Gas Recirculation (EGR) disabled. On-Board Diagnostic (OBD) codes and cruise control inhibition removal. | Power, fuel economy, towing and competition |
| Phalanx Flash Console 6.4L (MY '11-'12) | Shift scheduling, torque management, fueling, timing, turbo, "various other" parameters. DPF and EGR disabled. OBD codes and cruise control inhibition removal. | Power, fuel economy, towing and competition |
| MACHFORCE XP, Exhaust Race System 6.4L (MY '08-'10) | DPF disabled. Designed for permanent (bolt-in). | |
| MACHFORCE XP, Exhaust Race Pipe 6.4L (MY '10-'12)) | DPF disabled. Designed for easy install (slip-joint). | |
| MACHFORCE XP, Exhaust Race System 6.7L (MY '11-'12) | DPF disabled. Designed for permanent (bolt-in). | |
| MACHFORCE XP, Exhaust Race *Pipe* 6.7L (MY '11-'12) | DPF removed. Designed for easy install (slip-joint). | |

Spartan knew or should have known that these products were offered for sale or installed in order to bypass, defeat, or render inoperative devices or elements of design that control emissions of regulated air pollutants. The products replaced the original engine manufacturers' ECMs insofar as they managed the HDDE's fueling and other emission control strategies. As described above, for example, HDDE manufacturers design their ECMs to retard fuel timing as a primary way to control emissions, even though this method tends to reduce power and fuel economy.

Spartan's primary selling point for these products was to increase horsepower and fuel economy. The company's advertising stated: "Spartan is proud to be the first to offer engine and transmission tuning for your [Ford] 6.7L diesel. Whether you want to show your friends blistering power and torque, get better fuel economy, or just improve your new truck, we have the right solution for you"; and "Flash Tune your new 6.7L Ford Diesel".

Further, Spartan knew or should have known that these products were offered for sale or installed on "motor vehicle engines." Each product was designed and marketed for use on a specific make, model, and year of Ford HDDE. Ford obtained a COC from the EPA for these HDDEs. This certification unequivocally demonstrates that these HDDEs are "motor vehicle engines" because that is a product category for which manufacturers must obtain a COC.

Although Spartan may have required purchasers of the "Phalanx Flash Consoles" to state that they acknowledge that the product is only for "off-road, race use only" or "competition use," this does not change the EPA's determination that Spartan committed the violations described above.

As a legal matter, under the CAA there is no "competition only" exemption for motor vehicles or motor vehicle engines. "Motor vehicle" is defined as "any self-propelled vehicle designed for transporting persons or property on a street or highway." CAA § 216(2); 42 U.S.C. § 7550(2); *see also* 40 C.F.R. § 85.1703 (further defining "motor vehicle"). These definitions make no exemption for motor vehicles or motor vehicle engines used for competition.[1] More generally, these definitions are based on vehicle attributes (e.g. ability to travel over 25 miles per hour, lack of features which render street use unsafe) and make no exemption for vehicles based on their use.

As a factual matter, it appears that most or all of the products identified by this Notice of Violation are not used solely for off-road use or competition. For example, the "Phalanx Console" was designed and marketed to improve fuel economy, which is a selling point for those seeking to save costs associated with "transporting persons or property on a street or highway," but not for competition purposes. Optional GPS navigation, which is offered by Spartan, is also commonly associated with motor vehicle use. Lastly, Spartan also provides a "stock file back to [our] customers, which is critical in the event you need to remove your tuner for warranty work."

Enforcement

The EPA may bring an enforcement action for these violations under its administrative authority or by referring this matter to the United States Department of Justice with a recommendation that a civil complaint be filed in federal district court. CAA §§ 204 and 205, 42 U.S.C. §§ 7523 and

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[1] In contrast, the CAA exempts from the definition of "nonroad vehicle" and "nonroad engine" those vehicles and engines used solely for competition. CAA § 216(10)–(11); 42 U.S.C. § 7550(10)–(11). The EPA has implemented regulations describing how to exempt from CAA requirements nonroad vehicles and engines used solely for competition. 40 C.F.R. § 1068.235. These regulations explicitly do not apply for motor vehicles and motor vehicle engines. 40 C.F.R. § 85.1701(a)(1).

7524. Persons violating section 203(a)(3)(B) of the CAA, 42 U.S.C. § 7522(a)(3)(B), are subject to an injunction under section 204 of the CAA, 42 U.S.C. § 7523, and a civil penalty of up to $3,750 for each violation. CAA § 205(a), 42 U.S.C. § 7524(a); 40 C.F.R. § 19.4.

The EPA is available to discuss this matter with you in further detail, upon your request. Please contact David Alexander, the EPA attorney assigned to this matter, within 10 days of receipt of this Notice of Violation. Mr. Alexander can be reached at (202) 564-2109 or alexander.david@epa.gov.

Sincerely,

Phillip A. Brooks
Director
Air Enforcement Division
Office of Civil Enforcement

Office of Enforcement and Compliance Assurance (2201A)
EPA-300-B-15-001 May 2015

# U.S. EPA Small Business Resources Information Sheet

The United States Environmental Protection Agency provides an array of resources to help small businesses understand and comply with federal and state environmental laws. In addition to helping small businesses understand their environmental obligations and improve compliance, these resources will also help such businesses find cost-effective ways to comply through pollution prevention techniques and innovative technologies.

**Small Business Programs**
www.epa.gov/smallbusiness
EPA's Office of Small Business Programs (OSBP) advocates and fosters opportunities for direct and indirect partnerships, contracts, and sub-agreements for small businesses and socio-economically disadvantaged businesses.

**EPA's Asbestos Small Business Ombudsman**
www.epa.gov/sbo or 1-800-368-5888
The EPA Asbestos and Small Business Ombudsman (ASBO) serves as a conduit for small businesses to access EPA and facilitates communications between the small business community and the Agency.

**EPA's Compliance Assistance Homepage**
www2.epa.gov/compliance
This page is a gateway industry and statute-specific environmental resources, from extensive web-based information to hotlines and compliance assistance specialists.

**EPA's Compliance Assistance Centers**
www.assistancecenters.net
EPA's Compliance Assistance Centers provide information targeted to industries with many small businesses. They were developed in partnership with industry, universities and other federal and state agencies.

**Agriculture**
www.epa.gov/agriculture/

**Automotive Recycling**
www.ecarcenter.org

**Automotive Service and Repair**
ccar-greenlink.org/ or 1-888-GRN-LINK

**Chemical Manufacturing**
www.chemalliance.org

**Construction**
www.cicacenter.org or 1-734-995-4911

**Education**
www.campuserc.org

**Food Processing**
www.fpeac.org

**Healthcare**
www.hercenter.org

**Local Government**
www.lgean.org

**Metal Finishing**
www.nmfrc.org

**Paints and Coatings**
www.paintcenter.org

**Printing**
www.pneac.org

**Ports**
www.portcompliance.org

**Transportation**
www.tercenter.org

**U.S. Border Compliance and Import/Export Issues**
www.bordercenter.org

**EPA Hotlines, Helplines and Clearinghouses**
www2.epa.gov/home/epa-hotlines
EPA sponsors many free hotlines and clearinghouses that provide convenient assistance regarding environmental requirements. Some examples are:

**Clean Air Technology Center (CATC) Info-line**
www.epa.gov/ttn/catc or 1-919-541-0800

**Superfund, TRI, EPCRA, RMP and Oil Information Center**
www.epa.gov/superfund/contacts/infocenter/index.htm or 1-800-424-9346

**EPA Imported Vehicles and Engines Public Helpline**
www.epa.gov/otaq/imports or 734-214-4100

**National Pesticide Information Center**
www.npic.orst.edu/ or 1-800-858-7378

**National Response Center Hotline** to report oil and hazardous substance spills - www.nrc.uscg.mil or 1-800-424-8802

**Pollution Prevention Information Clearinghouse (PPIC)** - www.epa.gov/opptintr/ppic or 1-202-566-0799

**Safe Drinking Water Hotline** - www.epa.gov/drink/hotline/index.cfm or 1-800-426-4791